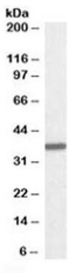
Arginase 1 Antibody Goat Polyclonal / ARG1 Antibody (R33229)

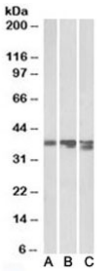
Catalog No.	Formulation	Size
R33229-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

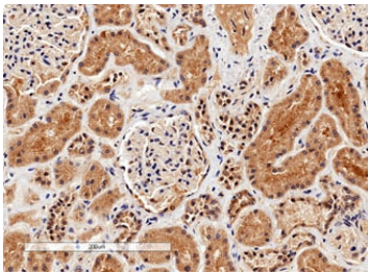
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat, Pig
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	383
Localization	Cytoplasmic
Applications	Western blot: 0.01-0.03ug/ml IHC (FFPE): 2-4ug/ml ELISA (peptide) LOD: 1:64000
Limitations	This Arginase 1 Antibody Goat Polyclonal is available for research use only.



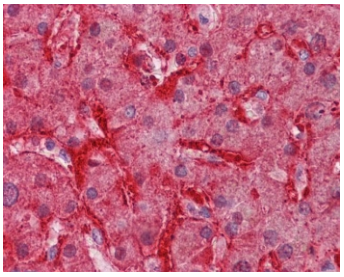
Western blot analysis of Arginase 1 Antibody Goat Polyclonal. Human liver lysate was probed with the goat polyclonal Arginase 1 antibody at 0.01ug/ml. Lane 1: human liver lysate. A band is detected at approximately 35 kDa, consistent with the predicted molecular weight of Arginase-1 (ARG1), a cytosolic urea cycle enzyme highly expressed in hepatocytes and responsible for the conversion of L-arginine to urea and ornithine in liver metabolism.



Western blot of pig (A), mouse (B) and rat (C) liver lysates with Arginase 1 antibody at 0.03ug/ml. Predicted molecular weight ~35 kDa.



IHC testing of FFPE human kidney tissue with Arginase 1 antibody. HIER: steamed with pH9 Tris/EDTA, HRP-staining.



Arginase 1 Antibody Goat Polyclonal immunohistochemistry of human liver tissue. IHC analysis of formalin-fixed, paraffin-embedded human liver tissue stained with the goat polyclonal Arginase 1 Antibody shows strong cytoplasmic AP red chromogenic staining in hepatocytes, consistent with the known hepatic expression and cytosolic localization of Arginase-1 (ARG1), a key urea cycle enzyme involved in arginine metabolism. Liver sinusoidal structures and surrounding stromal elements display minimal staining, highlighting hepatocyte-specific expression. Heat-induced epitope retrieval was performed using steamed antigen retrieval in pH6 citrate buffer prior to antibody incubation.

Description

Arginase-1 (ARG1), encoded by the ARG1 gene and also referred to as liver arginase or arginine ureahydrolase, is a cytosolic enzyme that catalyzes the final step of the hepatic urea cycle by hydrolyzing L-arginine to produce urea and L-ornithine. This reaction is essential for detoxification of ammonia generated during amino acid metabolism and represents a central metabolic pathway in hepatocytes. Arginase 1 Antibody Goat Polyclonal targets ARG1 protein and supports research investigating liver metabolism, urea cycle function, and hepatocyte-associated metabolic pathways.

Arginase-1 belongs to the arginase enzyme family and functions as a manganese-dependent hydrolase localized primarily within the cytoplasm of liver cells. Through its enzymatic activity, ARG1 converts excess nitrogen into urea for excretion while generating ornithine, a precursor involved in polyamine synthesis and cellular growth pathways. Because of this metabolic role, arginase-1 is highly enriched in hepatocytes and is considered a characteristic metabolic enzyme of liver tissue.

ARG1 protein expression is strongly concentrated in hepatocytes within normal liver parenchyma. This restricted tissue distribution makes arginase-1 a widely studied marker of hepatocellular differentiation. Detection of ARG1 protein is frequently used in studies examining liver metabolic activity, hepatocyte identity, and molecular pathways associated with nitrogen metabolism.

Arginase-1 expression has also been investigated in hepatocellular carcinoma and other liver-derived malignancies. Many hepatocyte-derived tumors retain ARG1 expression, reflecting their origin from hepatocytes and the persistence of metabolic pathways associated with liver function. Measurement of ARG1 protein therefore supports research focused on hepatocyte lineage and liver tumor biology.

Polyclonal antibodies recognize multiple epitopes on a target protein, which can enhance detection sensitivity in research

assays. The goat polyclonal Arginase 1 Antibody Goat Polyclonal is designed to recognize ARG1 protein and may provide robust detection across experimental conditions where recognition of multiple antigenic regions can be advantageous.

Arginase 1 Antibody Goat Polyclonal is developed for research applications targeting the ARG1 enzyme. Detection of arginase-1 using this antibody supports investigations into hepatic metabolism, arginine catabolism, and cellular pathways associated with nitrogen detoxification and hepatocyte biology.

Explore our protein microarray-validated Arginase 1 Antibody ARG1/1125 for investigating ARG1 expression, hepatocellular differentiation, and arginine metabolism.

Application Notes

Optimal dilution of the Arginase 1 Antibody Goat Polyclonal should be determined by the researcher.

Immunogen

Amino acids CFGLAREGNHKPID were used as the immunogen for this Arginase 1 antibody.

Storage

Aliquot and store the Arginase 1 antibody at -20oC.

Alternate Names

Arginase-1 antibody, ARG1 antibody, Liver arginase antibody, Arginine ureahydrolase antibody

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